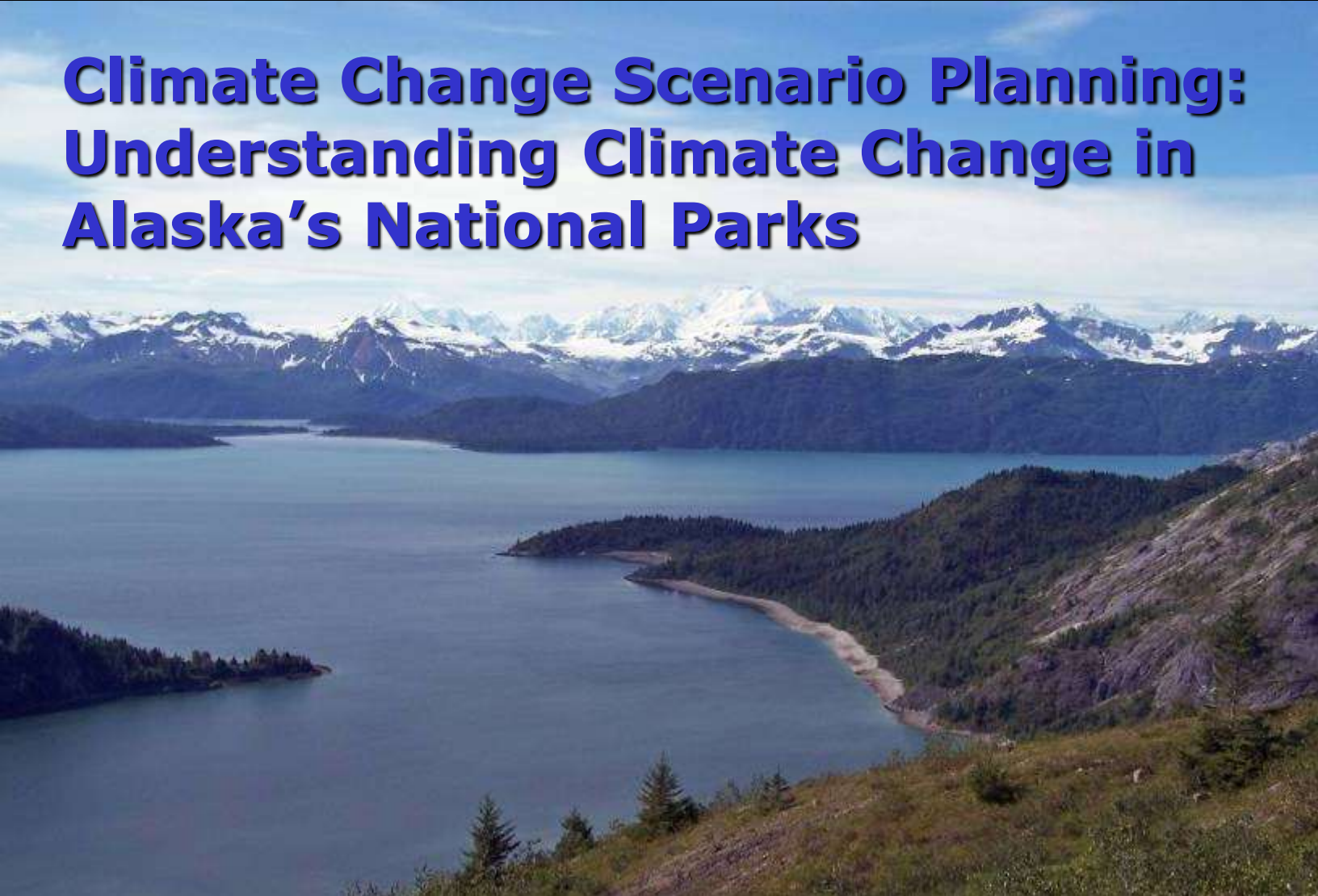


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Climate Change Scenario Planning: Understanding Climate Change in Alaska's National Parks

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Northwest Alaska Webinar 3. Presentation of Draft Impact Tables





Process for Assessing Impacts

1. Identify a broad range of potential effects to important processes, functions, resources, assets & values
2. Organize effects in a logical manner
3. Identify which parks and surrounding areas are likely to be affected by which effects
4. Identify how resources and operations would be affected



Identifying Potential Impacts

1. Identify a broad range of potential effects to important processes, functions, resources, assets & values
- 2. Organize effects in a logical manner**
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Principal Sources of Information

1. Alaska Talking Points:
 - Boreal and Arctic
 - Maritime and Transitional
2. NPS Alaska Region Climate Change Response Strategy
3. Other Presentations/Reports

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Parks are Affected Differently and Have Differing Concerns



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Hillside Collapse in Three Parks

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Cascading Impact Hierarchy Physical→Biological→ Social

Atmospheric Greenhouse Gas Levels

→ Air Temperature

→ Snow/Ice/Permafrost Thaw

→ Soil Drainage

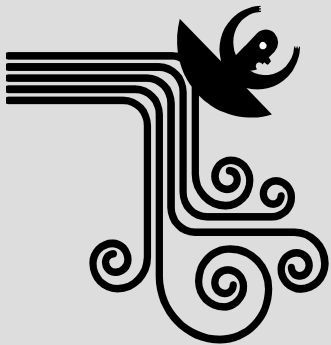
→ Plant Stress/Insects

→ Wildland Fire

→ Wildlife Habitat

→ Subsistence Opportunities

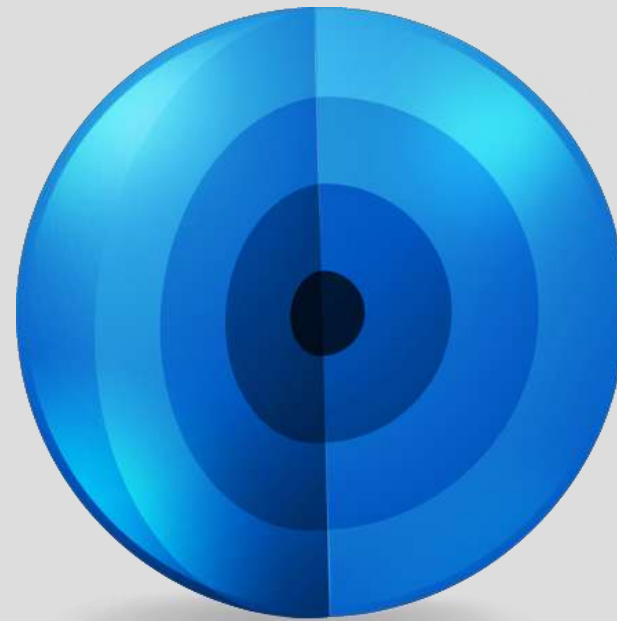
→ Management Challenges





A Clustered Impact Hierarchy Six “Spheres of Influence”

1. Atmosphere
2. Cryosphere
3. Hydrosphere
4. Lithosphere
5. Biosphere
- Other Human Uses and Values





What are potential effects and impacts?

- **Potential:** Inherently possible, likely, or expected, but not necessarily certain.
- **Effect or Affect:** A consequence, outcome, or result. (Not always a bad thing.)
- **Impact:** A forceful or particularly significant consequence. (An effect that is likely to warrant a response.)

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27 Higher Level Categories within six “spheres of influence”



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Types of Effects Generally Related to Atmosphere

- Greenhouse gases
- Air temperature
- Precipitation
- Stormy weather
- Air quality
- Atmospheric contaminants



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Types of Effects Generally Related to Cryosphere

- Ice and Snow
- Sea Ice
- Ice Roads
- Permafrost





Types of Effects Generally Related to Hydrosphere

- Sea level
- Marine
- Estuarine
- Freshwater
- Groundwater



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Types of Effects Generally Related to Biosphere

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- General
- Vegetation
- Fire
- Wildlife
- Fisheries
- Invertebrates
- Subsistence and Hunting



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Effects Generally Related to other Human Uses and Values

- Wilderness
- Tourism
- Other Hazards
- Customary and Traditional Knowledge
- Resource and Economic Development



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About 125 Potential Effects and Impacts were Identified within the 27 Higher Level Categories



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We Can't Focus on Everything

Some potential effects are more likely to happen than others.

Some effects would be more consequential for parks than others.

We can influence some outcomes, and others perhaps not.

Which ones warrant our particular attention, and where do they matter?



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The Effects Table

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Questions

- Do these potential effects make sense?
- What's wrong or very unlikely to happen?
- What's likely to happen but missing from the list?



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What's Next?

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Identifying Potential Impacts

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- 3. Identify which parks are likely to be affected by which effects**
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The Worksheet is available on the project website.

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Questions?



TAPS – Trans Alaska
Pipeline System
Dalton Highway

Exposed ice lens in
active thermokarst

